irradiating a semiconductor laser light onto said optical disk through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less.

8. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing an optical disk having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a semiconductor laser light onto said optical disk through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less;

wherein said hard-carbon coating contains at least one of element selected from the group consisting of Si, B, N, P and F.

15. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing a substrate made of an organic resin or an industrial plastic material, said substrate having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a semiconductor laser light onto said substrate through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less.

22. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing a substrate made of an organic resin or an industrial plastic material, said substrate having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a semiconductor laser light onto said substrate through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less;

wherein said contains at least one of element selected from the group consisting of Si, B, N, P and F.

29. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing an optical disk having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a laser light having an wavelength of 700 to 800 nm onto said optical disk through said hard-carbon coating ;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less.

36. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing an optical disk having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a laser light having an wave length of 700 to 800 nm onto said optical disk through said hard-carbon coating ;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less;

wherein said hard-carbon coating contains at least one of element selected from the group consisting of Si, B, N, P and F.

43. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing a substrate made of an organic resin or an industrial plastic material, said substrate having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a laser light having an wave length of 700 to 800 nm onto said substrate through said hard-carbon coating ;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less.

50. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing a substrate made of an organic resin or an industrial plastic material, said substrate having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a laser light having an wave length of 700 to 800 nm onto said substrate through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less;

wherein said hard-carbon coating contains at least one of element selected from the group consisting of Si, B, N, P and F.

57. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing an optical disk having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a visible light onto said optical disk through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less.

58. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing an optical disk having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a visible light onto said optical disk through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is 30/mm^2 or less;

wherein said hard-carbon coating contains at least one of element selected from the group consisting of Si, B, N, P and F.

59. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing a substrate made of an organic resin or an industrial plastic material, said substrate having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a visible light onto said substrate through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is $30/mm^2$ or less.

60. (Twice Amended) A method for operating an [optical] optically recordable disk memory comprising the steps of:

introducing a substrate made of an organic resin or an industrial plastic material, said substrate having a surface protected by a protective film comprising a hard-carbon coating having a thickness of 500Å or less;

irradiating a visible light onto said substrate through said hard-carbon coating;

wherein the number of pin-holes in said hard-carbon coating is $30/mm^2$ or less;

wherein said hard-carbon coating contains at least one of element selected from the group consisting of Si, B, N, P and F.

61. (Amended) A method according to either one of claims 57 [and] or 58, wherein said protective film is formed on the surface of said optical disk without heating.

62. (Amended) A method according to either one of claims 59 [and] or 60, wherein said protective film is formed on the surface of said substrate without heating.

63. (Amended) A method according to any one of claims 57 [to] 58, 59 or 60, wherein said hard-carbon coating comprises a diamond-like carbon.

64. (Amended) A method according to any one of claims 57 [to] 58, 59 or 60, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

65. (Amended) A method according to any one of claims 57 [to] 58, 59 or 60, wherein the thickness of said hard-carbon coating is 50Å or more.

C9 cont.

66. (Amended) A method according to any one of claims 57 [to] 58, 59 or 60, wherein said hard-carbon coating contains hydrogen.

67. (Amended) A method according to either one of claims 58 [and] or 60, wherein a concentration of said element is 20 atomic% or less.

72. (Amended) A method according to either one of claims 68 [and] or 69, wherein said protective film is formed on the surface of said optical disk without heating.

73. (Amended) A method according to either one of claims 70 [and] or 71, wherein said protective film is formed on the surface of said substrate without heating.

74. (Amended) A method according to any one of claims 68 [to] 69, 70 or 71, wherein said hard-carbon coating comprises a diamond-like carbon.

C10

75. (Amended) A method according to any one of claims 68 [to] 69, 70 or 71, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

76. (Amended) A method according to any one of claims 68 [to] 69, 70 or 71, wherein the thickness of said hard-carbon coating is 50Å or more.

77. (Amended) A method according to any one of claims 68 [to] 69, 70 or 71, wherein said hard-carbon coating contains hydrogen.

78. (Amended) A method according to either one of claims 69 [and] or 71, wherein a concentration of said element is 20 atomic% or less.

83. (Amended) A method according to either one of claims 79 [and] or 80, wherein said protective film is formed on the surface of said optical disk without heating.

84. (Amended) A method according to either one of claims 81 [and] or 82, wherein said protective film is formed on the surface of said substrate without heating.

85. (Amended) A method according to any one of claims 79[to] 80, 81 or 82, wherein said hard-carbon coating comprises a diamond-like carbon.

C11

86. (Amended) A method according to any one of claims 79 [to] 80, 81 or 82, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

87. (Amended) A method according to any one of claims 79 [to] 80, 81 or 82, wherein the thickness of said hard-carbon coating is 50Å or more.

88. (Amended) A method according to any one of claims 79 [to] 80, 81 or 82, wherein said hard-carbon coating contains hydrogen.

89. (Amended) A method according to either one of claims 80[and] or 82, wherein a concentration of said element is 20 atomic% or less.

94. (Amended) A method according to either one of claims 90 [and] or 91, wherein said protective film is formed on the surface of said optical disk without heating.

95. (Amended) A method according to either one of claims 92 [and] or 93, wherein said protective film is formed on the surface of said substrate without heating.

C12

96. (Amended) A method according to any one of claims 90 [to] 91, 92 or 93, wherein said hard-carbon coating comprises a diamond-like carbon.

97. (Amended) A method according to any one of claims 90[to] 91, 92 or 93, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

98. (Amended) A method according to any one of claims 90 [to] 91, 92 or 93, wherein the thickness of said hard-carbon coating is 50Å or more.

C12 cont

99. (Amended) A method according to any one of claims 90 [to] 91, 92 or 93, wherein said hard-carbon coating contains hydrogen.

100. (Amended) A method according to either one of claims 91 [and] or 93, wherein a concentration of said element is 20 atomic% or less.

105. (Amended) A method according to either one of claims 101 [and] or 102, wherein said protective film is formed on the surface of said optical disk without heating.

106. (Amended) A method according to either one of claims 103 [and] or 104, wherein said protective film is formed on the surface of said substrate without heating.

107. (Amended) A method according to any one of claims 101 [to] 102, 103 or 104, wherein said hard-carbon coating comprises a diamond-like carbon.

C13

108. (Amended) A method according to any one of claims 101 [to] 102, 103 or 104, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

109. (Amended) A method according to any one of claims 101 [to] 102, 103 or 104, wherein the thickness of said hard-carbon coating is 50Å or more.

110. (Amended) A method according to any one of claims 101 [to] 102, 103 or 104, wherein said hard-carbon coating contains hydrogen.

C13 Cont.

111. (Amended) A method according to either one of claims 102 [and] or 104, wherein a concentration of said element is 20 atomic% or less.

116. (Amended) A method according to either one of claims 112 [and] or 113, wherein said protective film is formed on the surface of said optical disk without heating.

117. (Amended) A method according to either one of claims 114 [and] or 115, wherein said protective film is formed on the surface of said substrate without heating.

118. (Amended) A method according to any one of claims 112 [to] 113, 114 or 115, wherein said hard-carbon coating comprises a diamond-like carbon.

119. (Amended) A method according to any one of claims 112 [to] 113, 114 or 115, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

C14

120. (Amended) A method according to any one of claims 112 [to] 113, 114 or 115, wherein the thickness of said hard-carbon coating is 50Å or more.

121. (Amended) A method according to any one of claims 112 [to] 113, 114 or 115, wherein said hard-carbon coating contains hydrogen.

122. (Amended) A method according to either one of claims 113 [and] or 115, wherein a concentration of said element is 20 atomic% or less.

127. (Amended) A method according to either one of claims 123 [and] or 124, wherein said protective film is formed on the surface of said optical disk without heating.

C15

128. (Amended) A method according to either one of claims 125 [and] or 126, wherein said protective film is formed on the surface of said substrate without heating.

129. (Amended) A method according to any one of claims 123 [to] 124, 125 or 126, wherein said hard-carbon coating comprises a diamond-like carbon.

130. (Amended) A method according to any one of claims 123 [to] 124, 125 or 126, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

131. (Amended) A method according to any one of claims 123 [to] 124, 125 or 126, wherein the thickness of said hard-carbon coating is 50Å or more.

C15 cont.

132. (Amended) A method according to any one of claims 123 [to] 124, 125 or 126, wherein said hard-carbon coating contains hydrogen.

133. (Amended) A method according to either one of claims 124 [and] or 126, wherein a concentration of said element is 20 atomic% or less.

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138. (Amended) A method according to either one of claims 134 [and] or 135, wherein said protective film is formed on the surface of said optical disk without heating.

139. (Amended) A method according to either one of claims 136 [and] or 137, wherein said protective film is formed on the surface of said substrate without heating.

C16

140. (Amended) A method according to any one of claims 134 [to] 135, 136 or 137, wherein said hard-carbon coating comprises a diamond-like carbon.

141. (Amended) A method according to any one of claims 134 [to] 135, 136 or 137, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

142. (Amended) A method according to any one of claims 134 [to] 135, 136 or 137, wherein the thickness of said hard-carbon coating is 50Å or more.

143. (Amended) A method according to any one of claims 134 [to] 135, 136 or 137, wherein said hard-carbon coating contains hydrogen.

C16 cont.

144. (Amended) A method according to either one of claims 135 [and] or 137, wherein a concentration of said element is 20 atomic% or less.

149. (Amended) A method according to either one of claims 145 [and] or 146, wherein said protective film is formed on the surface of said optical disk without heating.

150. (Amended) A method according to either one of claims 147 [and] or 148, wherein said protective film is formed on the surface of said substrate without heating.

151. (Amended) A method according to any one of claims 145 [to] 146, 147 or 148, wherein said hard-carbon coating comprises a diamond-like carbon.

152. (Amended) A method according to any one of claims 145 [to] 146, 147 or 148, wherein

C17 film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

153. (Amended) A method according to any one of claims 145 [to] 146, 147 or 148, wherein the thickness of said hard-carbon coating is 50Å or more.

154. (Amended) A method according to any one of claims 145 [to] 146, 147 or 148, wherein said hard-carbon coating contains hydrogen.

155. (Amended) A method according to either one of claims 146 [and] or 148, wherein a concentration of said element is 20 atomic% or less.

160. (Amended) A method according to either one of claims 156 [and] or 157, wherein said protective film is formed on the surface of said optical disk without heating.

161. (Amended) A method according to either one of claims 158 [and] or 159, wherein said protective film is formed on the surface of said substrate without heating.

162. (Amended) A method according to any one of claims 156 [to] 157, 158 or 159, wherein said hard-carbon coating comprises a diamond-like carbon.

C18

163. (Amended) A method according to any one of claims 156 [to] 157, 158 or 159, wherein film quality of said hard-carbon coating is measured in accordance with Raman spectroscopy.

164. (Amended) A method according to any one of claims 156 [to] 157, 158 or 159, wherein the thickness of said hard-carbon coating is 50Å or more.

165. (Amended) A method according to any one of claims 156 [to] 157, 158 or 159, wherein said hard-carbon coating contains hydrogen.

166. (Amended) A method according to either one of claims 157 [and] or 159, wherein a concentration of said element is 20 atomic% or less.

Please add new claim 167 as follows:

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167. The method according to any one of claims 1, 8, 15, 22, 29, 36, 43, 50, 57, 58, 59, 60, 68, 69, 70, 71, 79, 80, 81, 82, 90, 91, 92, 93, 101, 102, 103, 104, 112, 113, 114, 115, 123, 124, 125, 126, 134, 135, 136, 137, 145, 146, 147, 148, 156, 157, 158, or 159 wherein said hard-carbon coating is ultrasonically vibrated during formation.